



Newsletter for Denver's Apple users

Volume 6 Number 8

August 1984

MACINTOSH external drive

When I first bought an Apple + computer I purchased only one disk drive. For several months this seemed to be a good setup. Then I started programming with the UCSD Pascal p-System and discovered that two disk drives were not only convenient, but nearly a necessity. When I got my second drive and copied an entire disk without having to swap disks I was convinced that no computer should be without a second disk drive. When the Macintosh came out I wondered about the single drive built into the main unit. Sort of reminded me of the Apple ///. Not a pleasant thought. The other Mac features, however, were enough to convince me to sell my old reliable + and invest in a Mac.

Came the clear light of day. I discovered that the Mac's 128k memory was just not enough to allow copying of files and whole disks without several swaps. Furthermore, the System file containing the operating system was so large that when an application program was included on a disk little more than 100-150k were left for my files. I began to look forlornly at the connector on the Mac's back with the little disk drive icon over it. I was sure that a second drive would help, but was uncertain how the Mac and the operating system would behave if I got a new drive. For months the question was academic since the external drives were not available.

Then came a call from a fellow writer who informed me that he had just got his second drive and was really enjoying it. The next morning I called (my local Apple dealer and was overjoyed to hear that the Mac external drives were indeed in stock! Within hours I was carting the small box home, anxious to see if my Mac would accept the new transplant without tears.

The surprise came when I opened the box. No documentation! That is to say that there was a small single sided card that explained how to plug in the drive without damaging it, but that was it. The only thing to do was to put disks in both drives and see what happened when I booted.

Shazam! Both drives whirred one after the other and then the disk icon for the internal disk appeared. After a brief pause a second icon appeared on the desktop indicating that the Mac recognized the external drive. So what now? It checked each disk icon and there to my wonderment were two directories, though one window did overlap the other. It took me a few seconds with the mouse and I had everything in order. Okay, now let's see what it does. Drag a file from one window to the other, and up comes the familiar dialog box telling me how many files are being copied. But wait! No message to swap disks! Just sit back and wait for the transfer to finish. Nice.

What about application software? I double clicked MacWRITE and selected NEW from the File menu. The dialog box with current disk directory popped up, but under the EJECT button a new button marked DRIVE had appeared. MacWRITE knew that I had bought a new disk drive! What else was possible? Back in the Finder I put MacWRITE in the external drive and double clicked document from the other disk. Sure enough the Mac found the application without my having to tell it which volume to look at. Okay, how about this one: turn off the system and put a disk in the external drive only. You guessed it. The Mac boots either drive, the software doesn't know there is a difference. Now that IS nice.



denver apple pi



APPLE PI
P.O. BOX 17467
DENVER, COLORADO 80217

OFFICERS

Apple Pi BBS 303-469-7541

President
Bob Hein.....424-8357
Vice President
André van Meulenbrouck...Call BBS
Secretary
Liane Nusse.....279-5763
Treasurer
Will Smith.....279-7362
Software Librarian
& IAC Representative
Trent Hein.....424-8357

Publications Librarian
William Hatchett.....861-0034
New Member Contact Officer
Jeff Beehler.....421-6916
Store Representative
Jeff Stutzman.....424-1532
Sales Officer
Roy Dean.....Use Mail
Facilities & Property
& Apple Pi BBS
Steve Martin.....469-6855
Special Intrest Groups
& Education Officer
Joe Nagy.....978-0788
Seed Editor
Randall Ansley.....428-5627

ADVERTISING RATES

1/4 Page..... \$25.00
1/2 Page..... \$40.00
Full Page..... \$70.00

==== Circulation over 700 ====

The words APPLE, APPLE COMPUTER, and the APPLE LOGO are registered trademarks of the Apple Computer Company Inc. Representation or these trademarks in the Seed does not constitute any expression of agreement or disagreement by Apple Computer Inc. with any articals or printed material found in the Seed. The opinions, policies and comments contained in the Seed are soley the responsibility of the Apple Pi users group, officers and members.

Articles, stories, and other items in the Seed may be copied or used by other clubs or groups as long as credit is given to Denver Apple Pi and the author of the artical. On reprints please also include the date or volume number from the Seed.

MEMBERSHIP INFORMATION

\$10 APPLICATION FEE AND \$18 PER YEAR DUES

APPLE PI is an Apple Computer Users Group - not affiliated with Apple Computer, Inc. - that provides many member benefits, some of which are:

MONTHLY MEETINGS-

On the first Thursday of each month at 7:00 p.m. APPLE PI holds its general meeting at the Greene Center, Colorado School of Mines Campus, Golden, Colorado. This meeting is a combination of an informational meeting, new product announcements, and a short business meeting. The members are given an opportunity to buy computer supplies a little above cost. Software products are given away as door prizes.

On the Sunday following the general meeting there is an informal meet which is usually held at the home of a member, the location of which is announced in the newsletter and at the general meeting. This meeting is from 10:00 a.m. until 3:00 p.m. and provides a more informal environment to seek or give advice to fellow members and get copies of programs from the APPLE PI Library. Both of these meetings are open to the general public but only members have access to products that are sold.

PROGRAM LIBRARY-

APPLE PI currently has a library of 8,000 programs. All current disks are in 16 sector (3.3, Pascal, CP/M) format and are available to any member. APPLE PI Members can obtain copies from the library:

- 1) By coming to the monthly informal meeting (swap meet);
- 2) By written request to the club librarian (at any meeting or by mail);
- 3) By electronic mail on APPLE PI's bulletin board system:

When requesting copies, please include the following information:

- a) Your Name, Address, and Phone number;
- b) Disk Category and Volume Number;
- c) Blank Diskette(s) or request to utilize a new disk (member will be charged \$2.50 for the new disk);
- d) Copy fee (\$1.00 per diskette side unless you donate a program you have written at the same time and fill out a Program Submission Form). Only complete sides of disks will be copied.
- e) Instructions on how the disks are to be returned, i.e., at the next meeting, by mail, etc. (IF RETURN IS TO BE BY MAIL PLEASE BESURE TO INCLUDE A STAMPED, SELF-ADDRESSED FLOPPY DISK MAILER, AND \$2.50 TO COVER SHIPPING COSTS).

DISK OF THE MONTH-

Each month a collection of some of the best programs donated to APPLE PI during the preceding month are made available. The DOM can be purchased at any group meeting or by mail.

DUES-

Current membership dues are \$18.00 per year, with a one-time application fee of \$10.00. Checks should be made payable to APPLE PI.

MAC disk ...from page 1

However, I do not need to boot from both drives. So I now have one disk with MacWRITE, MacPAINT, the System files, and all the Fonts my heart desires, and I use another disk with no system files in the external drive for 400k of documentation storage. The whole thing is the equivalent of 5 Apple disk drives on-line at once! In case I haven't said it yet: NICE.

The second drive goes a long way towards making up for the rather limited memory the Mac currently has. In my opinion the Macintosh External Disk Drive is another example of the quality and simplicity Apple has designed into every feature of the Macintosh system.

oooooooooooooooooooooooooooooooooooooooooooo

**THE APPLE PI STORE NOW
HAS 3 1/2 MACINTOSH DISKS
ONLY \$39.00 BOX [10]**

oooooooooooooooooooooooooooooooooooooooooooo

NEWS FOR //s**APPLE //e ALTERNATE CHARACTER SET**

by Nathan Wallace

The Apple //e has an alternate character set which allows inverse lower-case characters to be displayed. To access the alternate character set use the following routine:

```
10 POKE 49167,0 : REM ACTIVATE ALTERNATE CHARACTER SET
20 REM TO USE INVERSE NORMAL CHARATERS USE "INVERSE" COMMAND
30 REM TO USE INVERSE LOWER CASE CHARACTERS USE "FLASH" COMMAND
40 REM WHEN RETURNING TO NORMAL CHARACTER SET INVERSE LOWER CASE WILL BECOME FLASHING SPECIAL CHARACTERS
50 POKE 49166,0 : REM RETURN TO STANDARD CHARATER SET
```

EDITORS NOTE

At the last Apple Pi general meeting I was asked if the new Seed format costs the club more money. Well the answer is yes and no. The Seed does cost a little more to print per page with the new format, that is the bad news. The good news is that by using the letter quality printer we can get more information on a page. To put it simply, the old Seed averaged 16 pages, with the new format we can put that much information on about 12 pages. The bottom line is that not only do we have a better Seed format but we are really saving money to!

As always I want your feedback. I may not answer all the mail I get but I do read it and I do try to answer it all. If you have suggestions or articles or whatever please send them in. If you have a modem just use the "L" command on the BBS.

I would like to add just one last thing. In order to get the Seed printed in letter quality some real crazy wiring had to be done. The printer did not have an interface or cable. Thanks to the efforts of Charles Gilliland at Colorado Computer Systems, we got the printer up and running in no time. Charles is in charge of computer maintenance at the store and made time for us (between fixing sick computers) to help us out. We may not always remember to say thank you for the special support our member stores give but this time I would like to give a special thanks to Charles and the good folks over at Colorado Computer Systems.

THANKS !!!!!!!!!!!

Randy

LOGON MACRO FOR AE

```
#0 *AT MO S7=15 D T 426-7541' RT2\L0
#1 \C*.L0
#2 %-YOUR NAME'%-PASSWORD'##=%T%\L3
#3 \R'>!=6%Y'\L4
#4 %:%%-%%-%%-%%-%%-%%-%%-%%-%%\L5
#5 R?6%:C' ?-4\L6
#6 %:T'??Y"
```


President's Report

With the August SEED, we welcome back (hopefully) all of the members that have been temporarily inactive in the club over the earlier summer months. Thus, it's time to get back into full-swing here at Denver Apple Pi.

First of all, let me comment about the SEED itself. This our second SEED with the new "open book" format. We all can thank our editor, Randy Ansley, for this terrific improvement!

Please remember to bring your MEMBERSHIP CARD to all Apple Pi meetings. From now on, we will be checking membership cards for purchase of supplies and library disk copies.

I would like to invite YOU to become an active participant in Denver Apple Pi. If you would like to volunteer, just talk to any of our officers. They'll be glad to help you become active in the club.

-- Bob Hein, President --

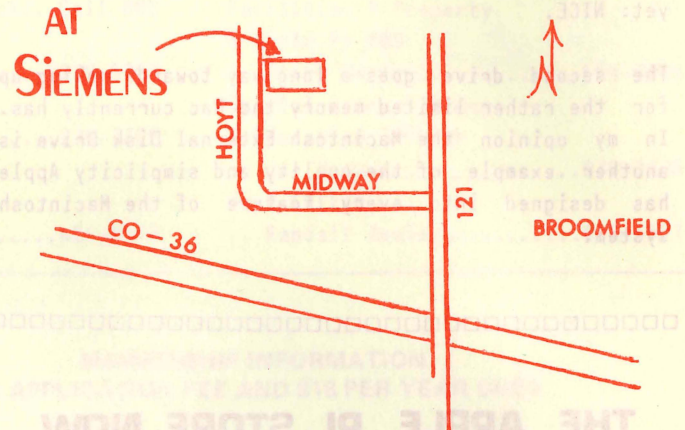
---CLASSIFIED---

After being away from computers for ten years and now a new owner os an Apple //e I am anxious to return to the exciting world of Data Processing. My backgrownd includes a wide variety of applications, exposures, hardware, and languages. Please call 428-6115 with any ideas you have. Also if you have been working with Apple Works and the Panasonic printer I would love to hear from you.

Thanks
Steve Feldman

Please Bring Your Pi Card
to All Apple Pi Meetings.

CORE MEET



LIBRARIANS REPORT

We're proud to say that the September Disk-of-the-Month will be our Golden (50th) DOM, representing over four years of consistent DOM production. We have decided that our 50th DOM is one that must be remembered, so it will not only consist of a "regular" DOM, but a collection of the best programs from DOMs 1-49. If necessary, the DOM will be 2-sided.

We need YOUR nominations for the best programs from DOMs 1-49. If you have a program you like, tell us about it! Either talk to any of the library staff at a General Meeting or Core Meet, or mail your nominations to our Post Office Box.

Although I am writing this in early July, it's time to start thinking about the 1984 Apple Pi Christmas disk. Each year we create a Christmas disk that is distributed to our Store Members at no cost to them. We would like to have one of your programs included on this disk, so contribute one today. ALL ENTRIES FOR THE 1984 CHRISTMAS DISK MUST BE IN BY THE OCTOBER GENERAL MEETING!

Happy Computing!
Trent Hein, Librarian

SA/400

Modification for an Apple Compatible Drive

by
Dennis E. Benn

The following instructions describe the modifications required to convert a stock Shugart SA-400 mini-disk drive to be compatible with the Apple Disk II interface.

Remove the P.C. board from the drive and perform the following modifications:

1. At J1 edge connect tab fingers, isolate pins 2, 4, 6, and 8 (all but #8 should already be isolated). Cut trace from tab finger #8 on the circuit side where it leaves the feed thru from the component side of the board.

In case you don't know the numbering of J1 tab fingers: all even numbers are on the the component side, and all odd numbers are on the circuit side. Numbering is in ascending order from the outside edge of the board towards the inside.

2. Connect four wires from J1 to pins of 4D (7407). Run wires along circuit side. Solder wires at tab fingers 4, 6, and 8 to feed throughs next to fingers. For tab finger #2, run wire through hole near finger #2 to the component side and solder directly to tab finger #2. Complete wiring as follows:

J1	4D (7407)
==	=====
2 --	Pin # 3
4 --	Pin # 5
6 --	Pin # 13
8 --	Pin # 1

3. Now a 7405 I.C. will be added piggy back on top of 4D (7407). Pins 8, 9, 10, and 11 may be cut off from the 7405 to be added for they will not be used. Bend pins 1, 3, 5, and 13 so they are pointing up. They will not be connected to the 7407 (4D). Solder pins 2, 4, 6, 7, 12, and 14 of the added 7405 to the same pins of the 7407 (4D). The pins bent up (1, 3, 5, and 13) jumper together with 30 gauge wire and connect to pin #5 of 2C (7407).

4. Remove R-PACK (1E) from socket and discard. Install a 2K Ohm 1/4 watt resistor in (1E) socket between pins #7 and #8. Also add two 2K Ohm 1/4

watt pullup resistors to signal lines at edge connector J1. One goes to tab finger #28 to Vcc, and the other from finger #30 to Vcc (+5 volts).

5. At location (1F) there is a D.I.P. jumper plug installed. Remove the connection between pins #5 and #10. Check to make sure that pins #7 and #8 are also open.

6. At location (2D) cut and lift pin #9 from the 7433 I.C. Cut the trace running from pin #12. Now connect pin #12 to lifted pin #9 and connect both to pin #7 (GROUND).

7. At location (2C) 7407, cut traces running from pins #11 and #13 on component side.

8. Install the following jumpers:

FROM	TO
=====	=====
(2C)#11 ----	(2E)#12
(2C)#13 ----	(2E)#13

9. At edge connector J1 add jumper between tab finger #10 and #16. Use feed throughs located next to each.

10. If power is going to be supplied directly to drives with separate power supplies, then wire/pin numbers 11, 12, 13, 15, 17, and 19 from the 20 conductor ribbon cable from the Apple II Disk Interface must be cut off from the drive end of the cable and not used. Power to the drives from added power source will be via J2 power connector of the P.C. board.

11. If power is to be drawn from the Apple II power supplies via the ribbon cable, then do the following:

On the circuit side of J1 edge connector make etch cuts to isolate tab fingers 23, 25, 27, 29, 31, and 33 from ground. Connect Apple ribbon cable/pin numbers to J1 via 34 pin connector as follows:

Ribbon/pin No's	Edge connector J1
=====	=====
11 -----	23
12 -----	25
13 -----	27
15 -----	29
17 -----	31
19 -----	33



12. Now add heavy gauge wire (22 gauge) from J1 pins #23 and #25 to the +5 volt buss on the P.C. board. In the same way add jumper wire from J1 pins #27, #29, and #31 to the +12 volt buss on the P.C. board.

13. The remaining ribbon/pin numbers of the 20 conductor ribbon cable from the disk interface to J1 and 34 pin edge connector are as follows:

Ribbon/pin No's	Edge connector J1
1 -----	1
2 -----	2
3 -----	3
4 -----	4
5 -----	5
6 -----	6
7 -----	7
8 -----	8
9 wire/pins not used	N/C
10 -----	24
14 -----	16
16 -----	30
18 -----	22
20 -----	28

14. Change the wiring on the write protect switch. Move the wire from the terminal towards the back of the drive to the center terminal. This will give write protection when the disk notch is taped.

Modification is now complete.

=====

DOUBLE AND TRIPLE CHECK YOUR WIRING!!!!

=====

Now it's time for the smoke test.

GOOD LUCK !!



Come to the CORE!

THANK YOU...

When you stop in to an Apple Pi member store tell them that you are with Apple Pi and thank them for the support they give. Our store members make valuable contributions to Apple Pi from special discounts to the door prizes at the meetings. When you need hardware, software or computer supplies remember our store members.

adam's computers, inc.

3355 So. Wadsworth Blvd.
Lakewood, CO 80227 (303) 986-9655

colorado Computer Systems, Inc.

3005 West 74th Avenue
Westminster, CO 80030 (303) 426-5880

ComputerLand®

8749 Wadsworth Blvd.
Arvada, CO 80003 (303) 420-1877

ComputerLand®

2422 So. Colorado Blvd.
Denver, CO 80222 (303) 759-9140



13045 West Alameda Parkway
Lakewood, CO 80228 (303) 988-9140

JOHNNY APPLESEED

Dear John:

I have heard that it isn't safe to use my computer during Thunderstorms because of the risk of a voltage spike due to lightning. Is this true?

Electrified

Dear Electrified:

Yes, it's true that you should use caution when using your computer during Thunderstorms unless you have a very good spike protector on your computer's power line.

If you do use your computer during Thunderstorms, you risk your computer, your printer, and all your data on disks in the disk drives.

John

Dear John,

I'm sure this is a bumb question but I'm going to ask anyway. I am a new computer user and I know that ROM stands for Read Only Memory and RAM stands for Random Accesss Memory. My question is what does that stuff really do?

RAM-bler

Dear RAM-bler,

When it comes to computers there is no such thing as a dumb question, at one time none of us knew about this stuff. That is why we have groups like Apple PI, so people can learn from others. To answer your question ROM is the type of memory that your computer uses and you yourself cannot change. When you turn on your Apple computer it knows how to do Applesoft BASIC and it knows to go look on a disk for a program to run. The information that tells the computer how to do this is on ROM chips inside your computer. RAM on the otherhand is unused memory until you use it. When you load a program or write a program the place it lives in the computer is called RAM memory. The user can change things in RAM like puting in a new program or adding DATA or just by turning the computer off. For more

information on types of memory see your Apple Ref. manual or I recommend any number of fine books that are available at the Apple Pi member stores.

John

Johnny Appleseed Needs YOUR questions!!

Send your Questions to:

Johnny Appleseed
% Denver Apple Pi
P.O. Box 17467
Denver, Colorado 80217-0467





TREASURER'S REPORT

BEGINNING CASH BALANCE 6-1-84 6809.48

INCOME

New Memebers	448.00
Renewal Members	432.00
DOM Sales	93.00
Library Copies	12.00
Sales of Supplies	2796.00
Seed Advertising	0.00
Interest Earned	37.52

TOTAL INCOME 3819.00

EXPENSE

Supplies for Resale	2627.67
CMS Room Rental	140.00
Librarian Supplies	77.47
Printing Costs	0.00
Postage	20.00
Supplies	0.00
BS Phone Bill & Repairs	0.00
State Sales Tax	0.00
Misc. Expense	74.52
Equipment Rental	25.00

TOTAL EXPENSE 2964.66

ENDING CASH BALANCE 7663.84

PRINTER-JET

We are considering a group purchase of the ink jet printer. The discount may depend on t volume. To get an idea of how many people would interested, please send your name and address to:

Bill Hatchett
P.O. Box 18795
Denver, CO 80218

or see me at the next meeting.

NAME: _____
ADDRESS: _____
CITY: _____ ZIP: _____



If you are a current member with Apple Pi you can now show the world that you belong to the best Apple group going. You can now order an official Apple Pi T-shirt. The shirts are bright yellow and have the Apple Pi logo screened onto the front. If you would like to order an Apple Pi T-Shirt send \$6.00 for each shirt ordered plus 4% sales tax to Apple Pi Shirt. If you cannot pick up your shirt at a general meeting or core meeting then please ad \$1.00 to cover mailing. This offer is for Apple Pi members only.

NAME _____

ADDRESS _____

CITY/STATE _____

ZIP _____

PHONE () _____

QUANTITY _____ SIZE _____ TOTAL _____

PLUS 4% SALES TAX _____

POSTAGE (\$1.00) _____

TOTAL _____

MAIL TO: Denver Apple Pi SHIRT
P.O.BOX 17467
Denver, CO 80217

XLISP

** by André van Meulebrouck **

mac

by
Joe Nagy

At the last meeting, several people came up to me and asked, "What is Apple Pi going to do for the Macintosh owners?" Well, we're going to try some things, ask for suggestions, and generally try to keep you informed of items coming out on the market. As mentioned, I'm going to be interested in hearing from you Macintosh owners, and have even asked our secretary to give me a listing of new members who are MAC owners.

The first thing we're going to do is kick off on a demonstration of Microsoft's Chart Program that will be released sometime in August. Through the courtesy of Adam's Computer Store, one of our sponsors, they have agreed to let me hold this demonstration at their facility for one evening or Saturday in September. The exact date has not yet been set. I should have this by the next meeting.

A little about CHART. Microsoft Chart lets you choose from over 40 different chart formats. Choose a pie chart, a column chart, or a line chart, and Microsoft's Chart draws your information into any of these or seven other formats available. You have flexibility to design your own or enhance the canned ones. With the Macintosh it's click, click, click, and you're off and away. I think anyone who's going to be interested in buying this package (and it's great) should try to make this demonstration. It will probably be two hours long.

Then, sometime in October, there will be a regular class on Microsoft's Multiplan. The time, number of days, day of the week, and cost will be in next month's SEED. We are looking for at least six people to make up this class. If you're interested, please call me. It will be at a computer store and I think that Macintoshes will be furnished.

November might find us taking a look at Apple's new MacProject program.

Anyway, I think there will be interesting items coming up for us Macintosh owners, so come to the meetings, because I'll update information on these activities there also.

Alright, you say XLISP sounds great, but you don't have a Z80 card. Well, don't feel so bad. I have tried three in this computer, and none of them have worked! I tried an imitation Microsoft, an ALS, and just today I got an Applied Engineering card. Not one has worked. I pulled all the cards out of my computer except the drive controller and the Applied Engineering card, thinking the enormous amounts of firmware on my unusual cards were confusing the Z80 card(s). Well, maybe I have a bad I.C. at location B2 like the documentation suggests in such situations. In any case CP/M has excited enormous amounts of excitement in me, as well as anticipation, yet it has been nothing but a bag of worms for me so far.

In deference to myself (in lieu of my bad luck with CP/M), and others who don't have it, I am in the process of writing a LISP interpreter that runs under NATIVE DOS! I love DOS 3.3. I have never had problems with anything that runs under it! Judging from the luck I've had with CP/M, it would seem that the entire pantheon of the Greek gods are against my using CP/M for some reason, but are not averse to my using native DOS. So far, I have developed a pseudo-stack tiny-LISP that will do all the examples in my prior LISP article involving CAR, CDR, and CONS. I have also put in the predicate NULL, and it works well. Perhaps I will offer this program to the club library. To run it, FAIL-SAFE DOS is required (my new name for DOS 3.3 after my experiences with CP/M). It is written in Applesoft (amazing that things like LISP can be implemented in Basic). Basic is not bad for writing prototypes and testing new algorithms. After this prototype, I intend to rewrite everything in C using the Manx C compiler THAT GENERATES NATIVE 6502 CODE, (assuming of course, that Z80 cards don't drive me mad in the meantime).

0010 1011

0010 1100



SECRETARY'S REPORT

---July Meeting

Mr. Gary Peterson of Burton & Dorr Law Firm presented a program on computer law; emphasizing reverse engineering, and protecting your written programs. His presentation was certainly both interesting and informative..thank you Mr. Peterson.

The July door prize, "Peter Proofreader", was won by Mr. James Donahue.

Trent Hein presented the July D.O.M., which includes an invaluable peek & poke chart, and some really great games from International Apple Core.

---Membership Expirations

If you received a letter concerning your June membership expiration, you may still renew at the \$18.00 rate instead of the \$28.00 new membership rate, until after you receive a postcard stating final expiration notice.

---Secretary's PFS

Much time has been put into making the door prize drawing random using PFS -- however, there still seems to be some question as to the method used; since space prohibits an explanation in this column - please feel free to call me, or see me at the meeting for same.

STAT:DOM

For our August DOM, we have:

- 1) A collection of Hello Programs (that didn't get put on the July DOM due to a lack of disk space)
- 2) A program to keep track of the serial numbers of your computer equipment. (It writes the numbers to disk, and then you can store that disk in a SAFE PLACE. Then if your computer equipment turns up missing, you have the serial numbers safely stored on disk.)
- 3) An Art/Graphics Program

NEW MEMBER CONTACT

As New Member Contacts Officer at Denver Apple Pi, I often get requests as to what is on certain disks that we sell to our membership. So, starting this month, I will reveiw these software products and inform you on their workability and usefulness.

This month's product is Applesoft Tutor. Applesoft Tutor was created by Microlab and is distributed as a public domain program. It is a very helpful for the beginning programmer. It includes sections on "Getting Started", "Programming Hints", "Applesoft Tutor Parts 1 and 2" and a "Quick Reference" program. These programs are mainly "word" demonstations and explanations. Although this disk is titled Applesoft Tutor, it should not be a replacement to the Applesoft Tutorial included with your Apple //e or + just as a supplement.

Included with this disk, is a program called "Quick Reference". I found this to be the highlight of this disk because it included practically every Applesoft command with a definion. This I feel is worth, to the beginning user, the \$5.00 charged to purchase this disk.

Jeff Beehler

BUG of the month

Well folks I found a small bug in the program that I wrote for the May DOM. The program was one of the winners of the program contest called the "The Program Padlock". The bug does not hurt the program but by fixing it it will make the program more secure. On line 4 of the program you will find two poke statements. One of the POKEs is POKE 27262,xx. Change that to POKE 47262,xx. After you make the change re-save the program. The old poke did nothing the new poke will make the programs that you use the padlock on even harder to copy.

Randy

INTERESTING BITS

by Chris Tufts

Associated Technology has conducted an industry survey that identifies over fifty major software locator services citing over 300,000 software packages and representing over 8,000 companies. The survey was conducted to provide a comprehensive guide for beginning a software search. The survey results are available to both buyers and sellers of software for \$8.50 from ATC Software, RT2, Box 448, Estill Springs, TN 37330.

Allied Research Corp. has unveiled a new detachable keyboard designed to offer easy operation and increased capability to Apple II and II+ Users. It is called the Data Spec Detached Extension Keyboard and is priced at \$299.95. The keyboard has a full ASCII character set with uppercase and lower characters. It also has 97 programmed functions and commands, 20 of which are located on a separate keypad. The keyboard comes with a ten-foot cable to allow freedom of movement to the user.

Apple Computer Inc. has introduced a mouse-controlled graphics package for the Apple II computer. The \$149 AppleMouse package includes a mouse, similar to those used with Macintosh and Lisa, and a MousePaint software program from the MacPaint graphics software for Macintosh. It is available for any Apple II computer. Also Apple is offering a "software developers tool-kit" that allows developers to incorporate the mouse in future Apple II applications. A similar program is under development for the Apple III and III+.

Davong Systems Inc has brought out a line of add-on Winchester disk subsystems for The Macintosh. The drive subsystems will be available in May through Davong's network of more than 1100 retail outlets. The 5-Mbyte drive is expected to sell for \$1995, with a 32-Mbyte model available for \$3995. The 10-Mbyte system will be priced at around \$2200 to \$2400. The drive subsystems are connected to Macintosh through one of the two RS422 serial ports. Also, in the third quarter of this year, Davong plans to introduce a streaming tape backup system and a local-area network for the Macintosh.

Textprint Inc., a supplier of image-enhancement modules, has introduced a printer-interface card for the Apple II and IIe that can work with both serial and parallel printers. List-priced at \$149.95, the product—called Print-It! model 2—is said to be compatible with more than thirty popular printer models. The suggested retail price includes a handbook and an appropriate cable, either parallel or serial.

In a dramatic price-cutting move, VisiCorp has slashed the price of its Visi On applications manager program from \$495 to \$95. Visi On, the firm's "integrated operating environment" for personal computers, allows users to display information from different programs on the computer screen, and to transfer data between programs. It is hoped that the price drop will spur sales of Visi On's applications programs.

A survey from Sofsearch International quantifying packaged computer software products available for seven micro-computer system groups, revealed Apple has the largest overall software base (6,428 identified products). Second was the 5047 available for the Tandy TRS-80 and third was the 4111 on the market for IBM systems.



denver apple pi seed

SECRETARY'S REPORT

NEW MEMBER CONTACT

General Meeting

Aug. 2

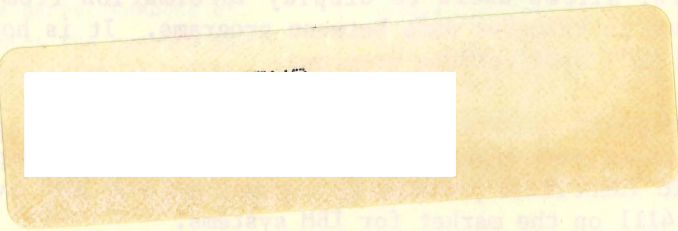
Core Meeting

Aug. 5



P.O. Box 17467
Denver, CO 80217

BULK RATE
U.S. POSTAGE
PAID
DENVER, COLO.
PERMIT NO. 3182



Price \$1.50